



*National Treatment Agency  
for Substance Misuse*

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“Long-term results for those who have been treated in one year found that nearly half who leave neither need further treatment nor were found to be involved in drug related offending”

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# **A LONG-TERM STUDY OF THE OUTCOMES OF DRUG USERS LEAVING TREATMENT**

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**SEPTEMBER 2010**



## EXECUTIVE SUMMARY

Around 200,000 people get help for drug dependency in England every year. Most are addicted to heroin or crack cocaine, or both. They will have been using their drug or drugs of dependency for eight years on average before they seek treatment.

Given their typical circumstances – heavily addicted, in poor health and of low self-esteem, often at a peak of criminal activity before coming into treatment – the prospects for long-term recovery from drug addiction can seem bleak. The medical consensus is that heroin and crack cocaine users take several years to overcome addiction, and spend repeated attempts in treatment before they do.

Against this background, the annual statistical reports of numbers in drug treatment can present a distorted picture of a treatment system that is subject to a steady ebb and flow of clients over a longer time frame. However the National Drug Treatment Monitoring System (NDTMS) database is now extensive enough to enable us to follow the treatment careers of individuals over successive years.

Consequently the National Treatment Agency for Substance Misuse (NTA) has analysed the long-term results for those who have been treated in one year, and found that nearly half (46%) of those who leave neither need further treatment, nor were they found to be involved in drug related offending.

In close co-operation with the Home Office, the NTA matched four years' worth of NDTMS data with Drug Test Records (DTR) and the Drug Interventions Programme (DIP) data to evaluate the long-term outcomes of drug treatment for 41,475 clients who left drug treatment in England in the financial year 2005-06. It includes both those who left treatment in a planned way, and those who dropped out.

This is the first time a study of this kind has been possible. Although there is no international long-term equivalent study based on live client data, the results compare favourably with longitudinal studies about the prospects of individuals' recovery from even the most entrenched addiction.

As a treatment programme for addiction usually takes longer than a year to complete, these findings provide a more meaningful assessment of treatment effectiveness than an annual snapshot. It enhances our understanding of what success means: for example, it was found that many of those who 'drop out' do not seem to need further treatment. Most importantly, it shows to users and all the people and agencies who work with them to bring about positive change that recovery from addiction is possible.

## KEY FINDINGS:

- Strong evidence that suggests sustained recovery from addiction was found for almost half of all the clients discharged from treatment during 2005-06. Around 46% neither came back into treatment, nor had a drug-related contact with the criminal justice system in the following four years. (A criminal justice contact could be with either the Drug Interventions Programme in the community or prison, or a positive DIP drug test for cocaine or opiates following arrest for offences such as burglary, robbery and theft).
- The majority (55%) of all clients who left treatment during 2005-06 did not return to treatment in the subsequent four years.
- Of those who left treatment but subsequently re-offended using drugs, 65% went back into treatment.
- As might be expected, clients who successfully completed a course of treatment were less likely to need treatment in later years.
- However, a high rate of those who were originally categorised as 'dropping out' (43%) did not return to either treatment or drug interventions in the criminal justice system.
- Those treated for the most addictive substances were the hardest to treat and more likely to relapse. Problem drug users addicted to both heroin and crack cocaine in combination had the poorest long term outcomes.
- Conversely, those leaving treatment for cannabis and powder cocaine did best with 69% and 64% respectively not returning during the follow-up period or being identified as re-offending using drugs.
- Whether someone was discharged from treatment free of all illegal drugs or free of dependency made little difference to how likely they were to need further treatment or commit drug-related crimes.
- Comparison between 2005-06 and 2006-07 treatment exits with re-presentations measured over three years showed significant similarity in the long term outcomes of both cohorts.

## 1.1 INTRODUCTION

This paper presents the results of a study to follow up individuals after leaving structured drug treatment services in the financial year 2005-06 to see whether in the four years after leaving, they re-present to drug treatment again and/or they have a drug related contact with the criminal justice system, after being arrested for offences such as burglary, theft and shoplifting.

All findings are based on the analysis of collated information from drug treatment providers through the National Drug Treatment Monitoring System (NDTMS), data collected from the Drug Interventions Programme through the Drug Interventions Monitoring Information System (DIMIS) and Drug Test Records (DTR) from individuals who are arrested. The datasets have been matched to create a pathway or journey map for a cohort of individuals exiting treatment and examined to determine whether there has been further contact with treatment and/or drug interventions through criminal justice agencies.

In the context of this report, contact with the Criminal Justice Service (CJS) refers specifically to contacts recorded in one of these datasets. It should be noted that while these are the most common datasets that drug users will appear in, some clients will have had other CJS contacts not covered by this data: for example, arrests for a non-drug related offence for which drug testing is not standard practice or arrests in areas where drug testing is not in place and where the client is not otherwise identified as a drug user.

Individuals were excluded from the study for the following reasons: that they were in prison at the time of leaving treatment, that they had been recorded as dying while in contact with treatment and if they shared attributors (initials, date of birth and gender) with another individual.

This report cannot categorically assert that **all** individuals who do not return to treatment or DIP are leading entirely drug free lives as to do so would require each of the 40,000+ clients in the study to be personally contacted and interviewed. Rather it uses the available datasets to demonstrate with the best possible evidence whether an individual's drug use has become problematic enough that they require treatment again or have come to the attention of the criminal justice system and the Drug Interventions Programme incurring the associated costs when they do so.

Further analysis to enhance our understanding of treatment and criminal justice journeys of drug using offenders is currently being undertaken through the Home Office Drug Data Warehouse.

## 1.2 CLIENT PROFILE

A sample of 41,475 clients was identified who had left the treatment system in 2005-06 as defined by not being in contact at the end of the year. Two thirds of the cohort (67%) were problem drug users (PDUs), i.e. were recorded as presenting for treatment for opiates and/or crack cocaine.

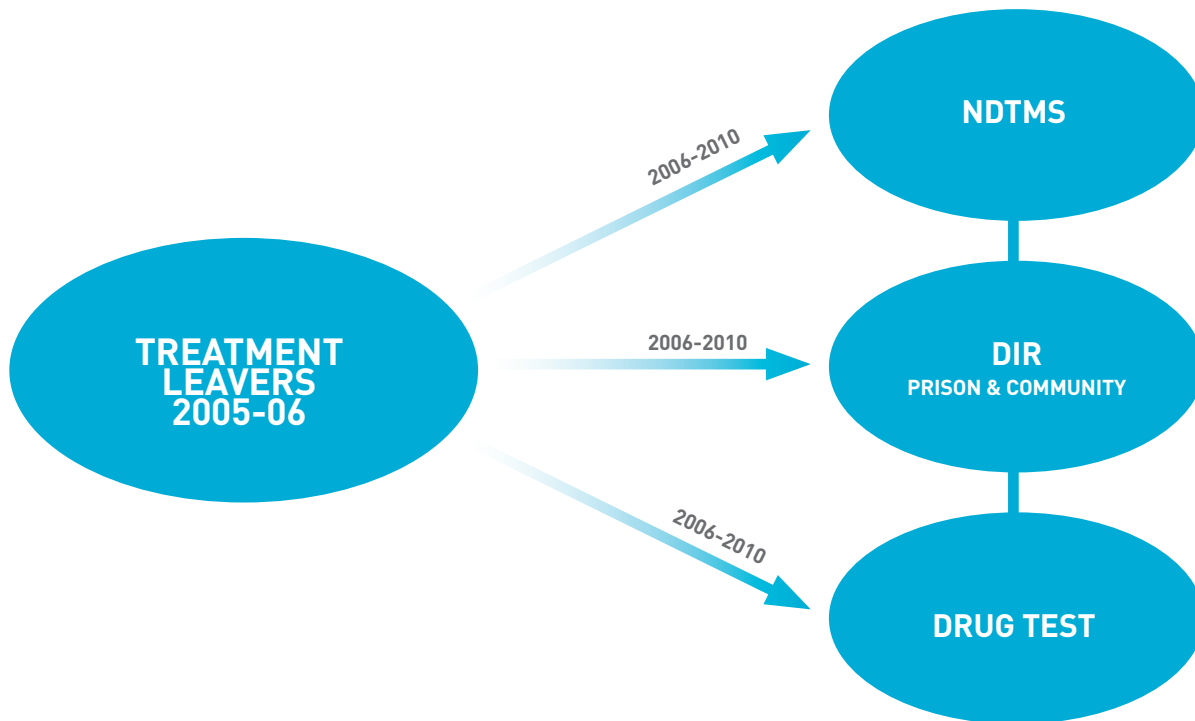
Over two fifths of all clients presented with 'opiates only' (42%) at the beginning of their latest treatment journey. Powder cocaine presentations were fairly evenly split between those in the 18-24 and 25-29 age bracket (28% and 24% respectively).

Almost one-quarter of treatment exits were planned (24%) – defined either as 'treatment completed' or 'treatment completed – no drug use', both denoting the clients had completed treatment successfully, leaving free of dependency.

The cohort was selected from the 54,000 adults discharged from structured drug treatment in 2005-06. Individuals were excluded from the study if they were in prison at the time of leaving as they will have been incarcerated for part or all of the study and also as many will have continued receiving treatment during and directly after custody. In addition, as individuals were identified by only attributors (initials, date of birth and gender) rather than names and addresses, any duplicate attributors were excluded.

Once the cohort of treatment leavers in 2005-06 was selected, it was then necessary to be able to determine if they had subsequently either returned to treatment or had shown up in any of these criminal justice datasets.

This was ascertained by bringing together data from the NDTMS and DIP including that collected through mandatory drug testing of arrestees covering the period 2006-07 to 2009-10. Once this dataset was assembled it was then possible to see if any of the 41,475 clients had turned up again in the following four years.



The datasets that have been used here are the most common that people that are using drugs problematically will turn up in. Therefore an individual not subsequently appearing in any of them after leaving drug treatment would indicate a likelihood of sustained recovery from dependency. However, as noted previously, they may have presented to other criminal justice agencies having committed offences triggered by their drug use and they will not be identified within this piece of work.

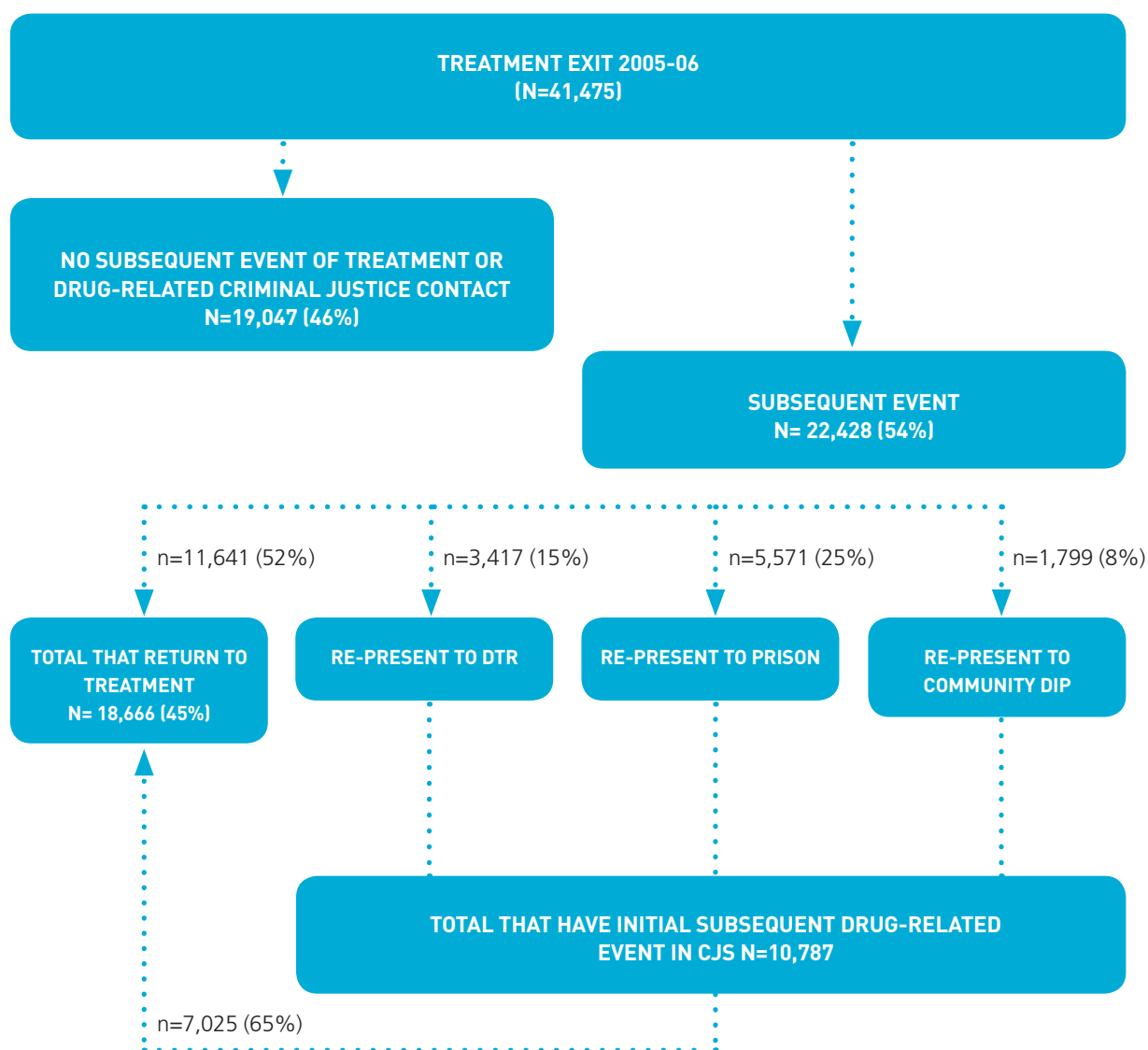
There will sadly be a small number of clients who died after they left treatment during the four year follow up period and due to the methodology used it has not been possible to exclude them from the study. It is recognised that their inclusion will marginally over estimate the numbers who are in ongoing recovery. Clients recorded as having died in treatment were, however, excluded from analysis at the outset.

Conversely, because the attributors and not the full names of clients have been used in the analysis, there is a chance that when an individual is later found in a dataset it is not in fact the same person as in the original sample, but instead someone sharing their initials, date of birth and gender. Although steps have been taken to limit false-matching it has not been possible to entirely avoid this, nor the effect that this will have in over estimating by a small amount the numbers who re-present.

A detailed explanation of the methodology used can be found in appendix A.

## 2 THE RESULTS OF THE STUDY

The analysis of matched data revealed that 46% of clients in the study did not return either to drug treatment or to drug interventions within the criminal justice system (CJS) within four years. The 22,428 re-presentations to drug treatment or to the criminal justice system mostly comprised of individuals who returned directly back to structured treatment; however, a sizable proportion had their first subsequent contact at the custody suite and in prison following their initial discharge in 2005/06. The diagram below demonstrates the first subsequent event of the 41,475 clients in the four years following their discharge from drug treatment.



Just under half of the clients discharged returned to treatment 18,666 (45%), with 11,641 re-presenting straight to treatment and a further 7,025 having a drug-related criminal justice contact first and then receiving structured drug treatment afterwards. The remaining 3,762 clients had a subsequent drug-related contact with the CJS but then didn't have a further drug treatment contact.

As would be expected, clients who left treatment successfully were less likely to need further treatment than those who dropped out, with 57% of clients having a planned discharge either not returning to treatment or to drug interventions within the CJS. As can be seen from the table below, there was little discernible difference in outcomes between the two recorded categories of successful discharge: either 'treatment completed' or 'treatment completed – no drug use', both of which denote the client has left free of dependency.

Perhaps more surprising was the re-presentation rates of those who dropped out of treatment: more than two fifths of those clients with an unplanned exit (43%) did not re-present at any time in the subsequent four years, suggesting that many had already received what they needed to overcome their dependency before choosing to leave. This corroborates what some practitioners have argued: that although drop-out is usually signalled by relapse, a proportion of those in treatment simply walk away once it has met their clinical needs without engaging with the formal administrative discharge process required by NDTMS.

Analysis of the time elapsed between initial discharge and re-engagement with services indicated no discernible difference between planned and unplanned exits.

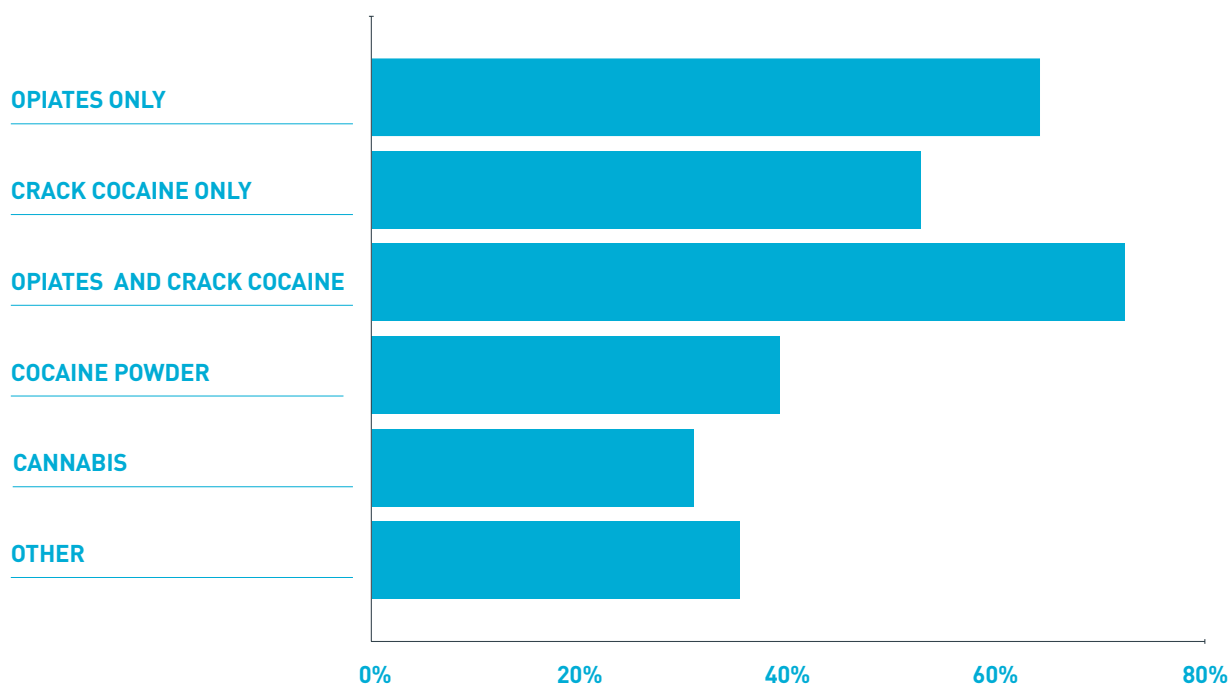
The proportion of clients readmitted to treatment or drug interventions in the criminal justice system within the four-year window varied greatly between drug groups, with 64% of clients using either crack cocaine, opiates or both returning, compared with only 33% of clients using other drugs. Those who presented originally with combined opiate and crack cocaine use were more likely to reappear than those with sole use of either drug (63% opiate only, 51% crack only and 72% opiate and crack in combination). This is consistent with previous studies, which have identified worse outcomes associated with poly drug users.

The probability of not returning to treatment or drug interventions in the CJS was notably higher for cannabis and powder cocaine users, with 69% and 64% not re-presenting to either.

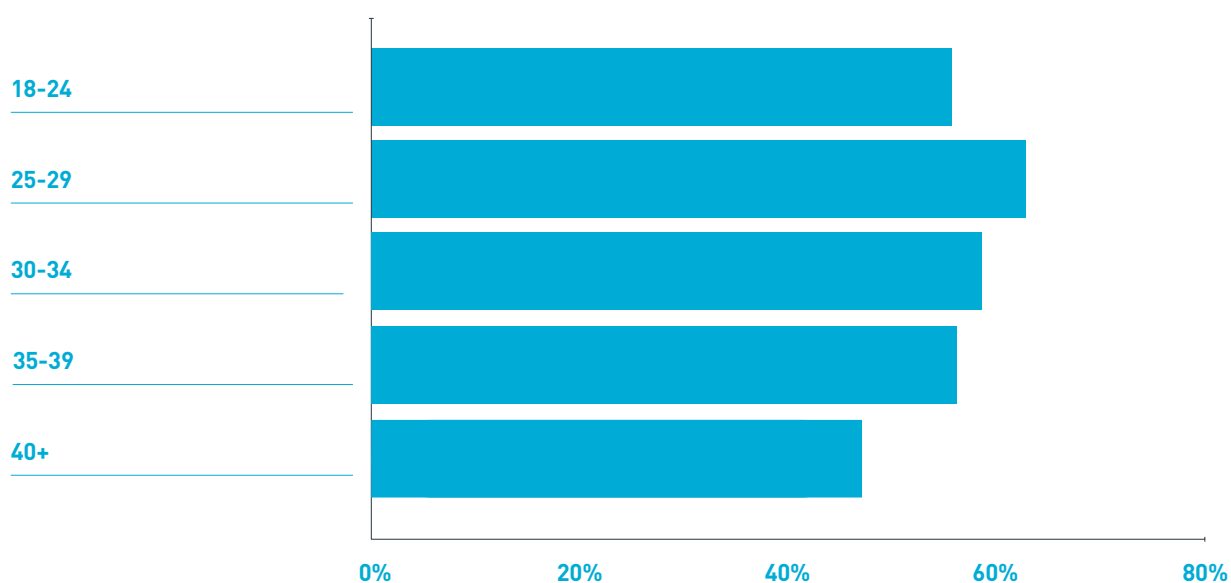
Reason for leaving treatment	Number of individuals leaving treatment 2005/06	Number not returning to treatment / CJS	Percentage not returning
Completed - no drug use	3353	1886	56
Completed	6417	3650	57
Unplanned	31705	13511	43

Differing rates of re-presentation were observed between the age groups, with those aged 40+ being least likely to return (43%), followed by 18-24 year olds (54%). Those aged 25-29 were the most likely to reappear, with 60% having done so.

#### RATES OF RE-PRESENTATION TO TREATMENT/CJS BY SUBSTANCE

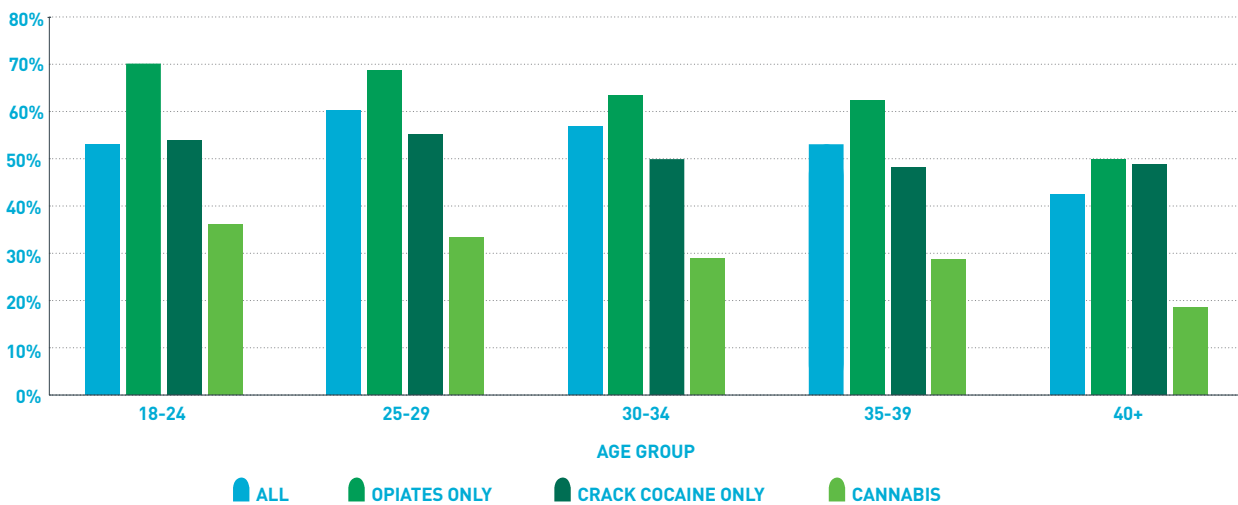


#### RATES OF RE-PRESENTATION TO TREATMENT/CJS BY AGE GROUP

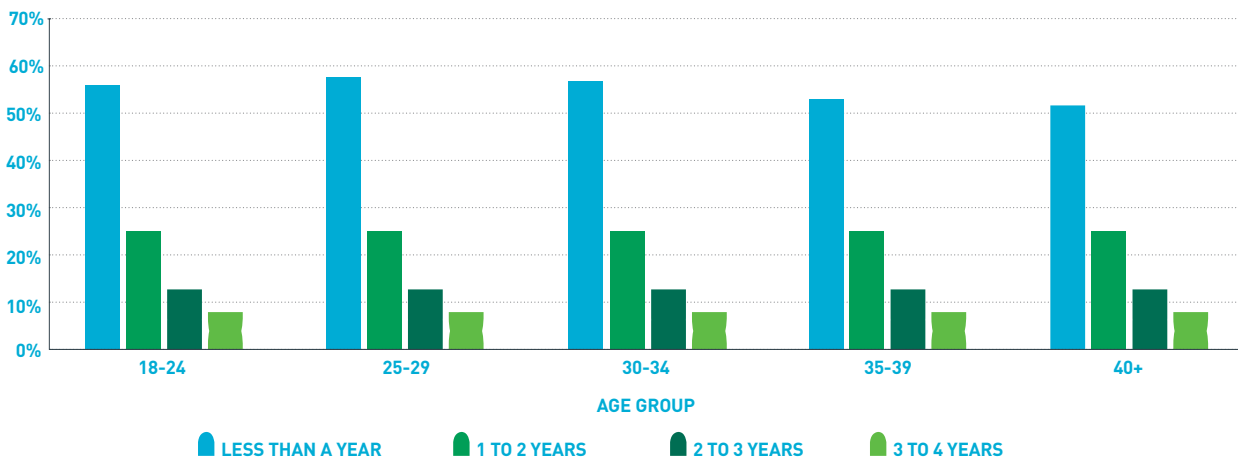


However, the relationship between age group and readmission rates was not uniform across presenting substances. The lower incidence of readmission in the top age band was clearly visible among opiate only users, but there was no discernible relationship between age and readmission rates for crack cocaine only users.

#### PROPORTION OF READMISSIONS FOR ALL 2005-06 EXITS (N=41,475)



#### TIME TO RE-PRESENT (N=22,428)



Fifty-seven percent of individuals who returned did so in the first year and the number of re-presentations roughly halved between each year after that. Many of those whose first subsequent contact was with the CJS were later re-engaged in treatment. At 12 months following discharge, 30% of those appearing first in CJS data had also re-started treatment; after four years, 65% of everyone with a subsequent CJS contact also had further treatment.

The analysis also demonstrated that those who had an unplanned exit (categorised as 'dropped out') and a subsequent event, came back quicker than those who had a planned exit, with 59% of subsequent contacts occurring within a year compared with 47%.

Further analysis has been carried out to compare the re-presentation rates of clients leaving structured treatment services in 2006-07 with those found in 2005-06, to see if similar rates and profiles of those not returning were found. In most cases they were and the results of this work can be found in appendix B.



### 3 CONCLUSION

The NTA has completed an evaluation of the outcomes of people leaving drug treatment using an initial cohort of 41,475 clients leaving structured treatment during 2005-06 and seeing if they subsequently came back to treatment or turned up in drug interventions in the criminal justice system (CJS).

Examination of all clients exiting in 2005-06 revealed that 46% didn't return to drug treatment nor had a drug related contact with the CJS in the following four years. This would suggest the majority of these individuals are managing to sustain their recovery from addiction though it is not possible to confirm this from the analysis presented in this report.

There were significant variations in the rates of re-presentations depending on the substances that the clients had presented with, demonstrating the difficulty of achieving long term recovery when using both opiates and crack cocaine.

Successfully completing a treatment episode was the best predictor of long term outcomes, but there were also a significant proportion of those clients who were not recorded as completing their course of treatment, who appeared to have taken the benefits from the interventions they received and overcome dependency in the four years of this study.

### APPENDIX A: METHODOLOGY

#### ANALYSIS

The analysis in this report is broken down for those exiting treatment in 2005-06, identifying which have had a subsequent contact, the type of contact (community treatment, prison treatment, being assessed as having a drug problem by a community DIP team or testing positive for opiates or cocaine in a police custody suite following arrest or charge) and the number of years the subsequent event occurred post treatment exit. The same analysis was conducted for 2006-07 exits for comparison, though with a shorter follow up period of three years (see Appendix B).

To determine if a client re-presents to treatment or if they turn up at a later time in the criminal justice system (CJS), the attributors (initials, date of birth and gender) of those clients leaving treatment in 2005-06 were then searched for in NDTMS, DIMIS and DTR datasets up to 31 March 2010. All data matching followed strict data sharing protocols and was carried out adhering to all the same data protection and security processes used by the NTA and the Home Office to handle this type of information. No identifiable information has been used in this report.

The study used the three datasets in which the sample analysed are most likely to reappear if they relapse or had originally left treatment with a continuing drug problem. However, it remains a possibility that a proportion of the individuals who did not re-present to either structured treatment or the DIMIS/DTR might have experienced another drug-related event, such as an admission to hospital.

There will also be a small number of individuals who would have sadly died during the four years after leaving treatment and would therefore not be seen in any of the datasets used in this study. There is little research or literature available about the death rates of drug users generally outside of treatment and that which is done tends to focus on the highest harm group of injecting opiate users (IDUs).

The literature that is available would suggest a death rate of about one percent every year for those clients who are injecting, so it could be assumed that the death rate of IDUs in this study would be at the most one percent, for non injecting opiate users the rate would likely be less than one percent and, for those clients who use cannabis, cocaine and other drugs, because the level of risk is much lower, it would have to be assumed that the death rate would be significantly less than one percent.

In future iterations of this work we intend to extend our understanding of client outcomes by also looking at the extent to which clients leaving treatment have moved to what could be seen as a position of recovery, for example, living in suitable accommodation and/or being in employment.

## DATA HANDLING

NDTMS data is gathered from treatment providers and includes information on service users recorded as accessing a Tier 3 or 4 modality/intervention<sup>1</sup>. Clients recorded as using alcohol as their main drug are excluded.

Any 'individual' with more than one Drug and Alcohol Action Team (DAAT) of residence in NDTMS during 2005-06 was excluded, to reduce the possibility of false matching at subsequent event stage. Any client with an NDTMS exit date falling within the period of a prison treatment episode was excluded. For the purpose of identifying clients as being in contact with the prison treatment at the point of NDTMS exit, any prison treatment episode recorded as beginning during 2005-06 and with no related closure date was categorised as ongoing from that point. Also removed from the analysis were clients whose NDTMS closure was the result of their death. As only adults can participate in DIP, clients under 18 were also excluded.

The earliest contact post discharge was identified via combining subsequent NDTMS triage dates with positive drug test dates and any contact dates with prison or community DIP teams, except for those where the client was assessed as not having a drug problem.

While the exclusions, as noted above, sufficiently reduce the risk of false matching for the purpose of this report, it is not possible to eliminate this risk all together. As such, there may be a few instances in which rehabilitated clients have wrongly been identified as having a continuing treatment need.

## APPENDIX B: RE-PRESENTATIONS TO TREATMENT AND THE CJS IN 2005-06 AND 2006-07

Analysis of exits from treatment for the financial year 2006-07 was conducted to compare to 2005-06. The maximum time to re-presentation for the 2006-07 cohort was three years (from latest possible exit date to study end point).

The profile of clients exiting the treatment system in 2006-07 broadly resembled that of those exiting in the previous year. However, the proportion of PDUs had fallen from 67% to 65%, with cannabis and powder cocaine accounting for a slightly larger proportion of the sample. Furthermore, 2006-07 saw a rise in planned discharges: up to 29% from 24% in 2005-06.

Analysis of 2006-07 exits closely reflected those observed for 2005-06. By the three year mark, half of both samples had remained out of contact. Also, variations between drug groups, ages and planned versus unplanned exits were not discernibly different.

<sup>1</sup>NTA (2006). *Models of Care for Treatment of Adult Drug Misusers: Update 2006*. London: NTA.

